

ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

| Title of Invention | [WELLBORE COMMUNICATION SYSTEM] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>Application Number : <u>10707970</u></p> <p>Confirmation Number:</p> <p>First Named Applicant: John Lovell</p> <p>Attorney Docket Number: 20.2836</p> <p>Art Unit:</p> <p>Examiner:</p> <p>Search string: (3090031 or 3274798 or 3323327 or 3926265 or 4066995 or 4348672 or 4387372 or 4468665 or 4496174 or 4525715 or 4553097 or 4578675 or 4605268 or 4691203 or 4722393 or 4790380 or 4823125 or 4839644 or 4864293 or 4933640 or 4936139 or 5089779 or 5138313 or 5160925 or 5174765 or 5236048 or 5260662 or 5268683 or 5396232 or 5509474 or 5517464 or 5642051 or 5708220 or 5942990 or 5959547 or 6018301 or 6018501 or 6041860 or 6075462 or 6098727 or 6112809 or 6144316 or 6160492 or 6177882 or 6188222 or 6209632 or 6218959 or 6356205 or 6359569 or 6405795 or 6439324 or 6464011 or 6466872 or 6531871 or 20010013412 or 20010042617 or 20020104653 or 20020126021 or 20020140572).pn</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>US Patent Documents</p> <p>Note: Applicant is not required to submit a paper copy of cited US Patent Documents</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>init</th> <th>Cite.No.</th> <th>Patent No.</th> <th>Date</th> <th>Patentee</th> <th>Kind</th> <th>Class</th> <th>Subclass</th> </tr> </thead> <tbody> <tr> <td>nal</td> <td>1</td> <td>3090031</td> <td>1969-09-29 <u>05/14/1963</u></td> <td>Lord</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>2</td> <td>3274798</td> <td>1964-06-17 <u>09/27/1964</u></td> <td>Wiggins, Jr.</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>3</td> <td>3323327</td> <td>1965-05-20 <u>06/06/1965</u></td> <td>Leathers et al.</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>4</td> <td>3926265</td> <td>1975-12-16</td> <td>Bouyoucos</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>5</td> <td>4066995</td> <td>1978-01-03</td> <td>Matthews</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>6</td> <td>4348672</td> <td>1982-09-07</td> <td>Givler</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>7</td> <td>4387372</td> <td>1983-06-07</td> <td>Smith et al.</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>8</td> <td>4468665</td> <td>1984-08-28</td> <td>Thawley et al.</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>9</td> <td>4496174</td> <td>1985-01-29</td> <td>McDonald et al.</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>10</td> <td>4525715</td> <td>1985-06-25</td> <td>Smith</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>11</td> <td>4553097</td> <td>1985-11-12</td> <td>Clark</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>12</td> <td>4578675</td> <td>1986-03-25</td> <td>MacLeod</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>13</td> <td>4605268</td> <td>1986-08-12</td> <td>Meador</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>14</td> <td>4691203</td> <td>1987-09-01</td> <td>Rubin et al.</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>15</td> <td>4722393</td> <td>1988-02-02</td> <td>Rumbaugh</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>16</td> <td>4790380</td> <td>1988-12-13</td> <td>Ireland et al.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>nal</td> <td>17</td> <td>4823125</td> <td>1989-04-18</td> <td>Rorden et al.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | init | Cite.No. | Patent No. | Date | Patentee | Kind | Class | Subclass | nal | 1 | 3090031 | 1969-09-29 <u>05/14/1963</u> | Lord | | | | | 2 | 3274798 | 1964-06-17 <u>09/27/1964</u> | Wiggins, Jr. | | | | | 3 | 3323327 | 1965-05-20 <u>06/06/1965</u> | Leathers et al. | | | | | 4 | 3926265 | 1975-12-16 | Bouyoucos | | | | | 5 | 4066995 | 1978-01-03 | Matthews | | | | | 6 | 4348672 | 1982-09-07 | Givler | | | | | 7 | 4387372 | 1983-06-07 | Smith et al. | | | | | 8 | 4468665 | 1984-08-28 | Thawley et al. | | | | | 9 | 4496174 | 1985-01-29 | McDonald et al. | | | | | 10 | 4525715 | 1985-06-25 | Smith | | | | | 11 | 4553097 | 1985-11-12 | Clark | | | | | 12 | 4578675 | 1986-03-25 | MacLeod | | | | | 13 | 4605268 | 1986-08-12 | Meador | | | | | 14 | 4691203 | 1987-09-01 | Rubin et al. | | | | | 15 | 4722393 | 1988-02-02 | Rumbaugh | | | | | 16 | 4790380 | 1988-12-13 | Ireland et al. | | | | nal | 17 | 4823125 | 1989-04-18 | Rorden et al. | | | |
| init | Cite.No. | Patent No. | Date | Patentee | Kind | Class | Subclass | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| nal | 1 | 3090031 | 1969-09-29 <u>05/14/1963</u> | Lord | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 3274798 | 1964-06-17 <u>09/27/1964</u> | Wiggins, Jr. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 3323327 | 1965-05-20 <u>06/06/1965</u> | Leathers et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | 3926265 | 1975-12-16 | Bouyoucos | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | 4066995 | 1978-01-03 | Matthews | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | 4348672 | 1982-09-07 | Givler | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | 4387372 | 1983-06-07 | Smith et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | 4468665 | 1984-08-28 | Thawley et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | 4496174 | 1985-01-29 | McDonald et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 | 4525715 | 1985-06-25 | Smith | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 | 4553097 | 1985-11-12 | Clark | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12 | 4578675 | 1986-03-25 | MacLeod | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 | 4605268 | 1986-08-12 | Meador | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 | 4691203 | 1987-09-01 | Rubin et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 | 4722393 | 1988-02-02 | Rumbaugh | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 16 | 4790380 | 1988-12-13 | Ireland et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| nal | 17 | 4823125 | 1989-04-18 | Rorden et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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 09/27/1966 }
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